Utility System Summary

General

This utility system summary has been provided to supplement other documents included in the specific plan. Please refer to the "Rodeo Grounds Water And Sewer System Improvement Report"; Prepared For: Intrawest & The June Lake Public Utilities District; By: Triad/Holmes Associates; dated: February 17, 2004 By: Triad/Holmes Associates[1], for additional information.

The Rodeo Grounds Specific Plan[2] allows for 900 dwelling units at build-out, which would be app. 2600 people at one time. Both of these figures are consistent with the General Plan.

Water System

The existing water system does not provide water to the Rodeo Grounds area. The closest water lines include a 2" water line from the Snow Creek tank site to the Gull Lake Campground area adjacent to the Rodeo Grounds site and the 8" water line in Leonard Avenue.

Water Source

The JLPUD has Diversion Water Rights for 1,240,000 gallons per day (gpd).[3] The Village System has an average day water demand of 150,000 gpd and a maximum month average day demand of 280,000 gpd.[4] The Rodeo Grounds project may approximately double this for an average day demand of 300,000 gallons per day and a maximum month average day demand of 560,000 gpd. JLPUD has sufficient Diversion Water Rights for this project.

Domestic water supply for the Rodeo Grounds will be provided for by the June Lake Public Utility District (PUD) and will be a part of the Village Water System. Water for the Village System is provided from a diversionary dam at Snow Creek and an intake facility in June Lake. Currently the June Lake plant is only used during the summer months. The current system serves approximately 700 full time residents with as many as 3000 visitors on weekends and holidays, with a present development area of approximately 68 acres. The PUD currently has diversion water rights of 448,000 gpd (gallons per day) from June Lake, and 668,000 gpd from Snow Creek, for a total of 1,116,000 gpd, which equates to 407 MGY (million gallons per year).[5]

From 1975 until 1982 the Village System's average water demand was approximately 230,000 gpd, or approximately 84 MGY, and 100% of the water was diverted from

[1] Rodeo Grounds Water And Sewer System Improvement Report; Prepared For: Intrawest & The June Lake Public Utilities District; By: Triad/Holmes Associates; dated: February 17, 2004 By: Triad/Holmes Associates
[2] Rodeo Grounds Specific Plan
[3] June lake Public Utility District, Master Water Plan Update, Boyle Engineering Corporation, November 1999.
[4] June lake Public Utility District, Master Water Plan Update, Boyle Engineering Corporation, November 1999. Table 5, page 10.
[5] Master Water Plan Update for June Lake Public Utility District, Boyle Engineering Corporation, November 1999 with draft updates April 2002

June Lake from 1975-1978 with the Snow Creek Plant coming on line in 1978[6]. From 1992 to 1998 the average water demand was lowered to approximately 150,000 gpd or approximately 55 MGY, which the PUD attributes to the replacement of old water lines.[7]

Existing studies speculate on the draw down of June Lake from evaporation, but not from development, and are based on data from other lakes in the area. The draw down of June Lake from evaporation is estimated to be 38 inches or 940 acre-feet per year[8]. If 100% of the existing water demand is taken from June Lake (55 MGY which or 170 ac-ft per year), the draw down of June Lake caused by domestic uses would be approximately seven inches per year. If the Rodeo Grounds Project increases the water demand by 55 MGY (170 acre-ft/yr) or doubles the existing demand, the worst-case scenario is a draw down of 7 inches per year to June Lake.

There are several options for water source for the Rodeo Grounds Project. The existing options include June Lake and Snow Creek. A new source could be generated from groundwater if necessary. At June Lake water is drawn directly from June Lake, then filtered and pumped into the June Lake Public Utility District (JLPUD) system. Snow Creek Water Source – Water is drawn from Snow Creek, then filtered and gravity feeds into the Snow Creek tank. The groundwater system will be added if necessary at a location onsite or offsite depending upon JLPUD requirements.

Water Treatment

Currently the June Lake plant has a capacity of 90 gpm (gallons per minute) or 130,000 gpd. The June Lake plant is in the process of being expanded to 200 gpm (288,000 gpd) with the ultimate potential capacity of 400gpm (576,000 gpd) with additional filter membranes[9]. The Snow Creek Plant has a capacity of 230 gpm (331,000 gpd). The total capacity once present improvements are complete of both plants is 430 gpm (619,000 gpd). The ultimate capacity of both plants without any further improvements at the Snow Creek Plant is 630 gpm (907,000 gpd).[10] This amount is greater than than the amount required for supply to the Village and Rodeo Grounds area (approximately 580,000 gpd), and less than the maximum diversion water rights (1,240,000 gpd). This ultimate water treatment capacity will be sufficient to meet the maximum month average day demand, including the new Rodeo Grounds facilities.

Water Storage

Currently the June Lake PUD operates three storage facilities in the Village Water system. The June Lake Tank which has a nominal tank capacity of 225,000 gallons, the Snow Creek Tank which has a nominal capacity of 376,000 gallons, and the Highlands Tank which has a nominal capacity of 400,000 gallons, for a total of

[6] Master Water Plan for June Lake Public Utility District, Boyle Engineering Corporation, September 1983
[7] June lake Public Utility District, Master Water Plan Update, Boyle Engineering Corporation, November 1999.
[8] June Lake Area Water Assessment Study, Department of Water Resources, April 1981
[9] Pohlman, Mindy, General Manager, June Lake PUD, Interview, January 23, 2004
[10] June lake Public Utility District, Master Water Plan Update, Boyle Engineering Corporation, November 1999

1,001,000 gallons. The Village System and Down Canyon System have sufficient reservoir capacity for present water demands.[11]

The predicted storage requirements for the Rodeo Grounds had been 1,400,000 gallons[12]. This was based on the assumption of 10,000 people added to the system[13]. Since the actual amount of people that will be added due to the Rodeo Grounds is less than one-third that amount, or under 3000 people, our initial studies[14] indicate a tank with a capacity of 530,000 gallons will be adequate. There are two Reservoirs sites under consideration. Both of these reservoir sites would include an above ground tank.

The first reservoir site under consideration is the Snow Creek Tank #2 site. This tank site would be adjacent to the existing Snow Creek Tank. Advantages of this site include that it is well hidden from view. There is already a tank onsite. It would be expected that a new tank would not create a significant visual impact. Access to this tank already exists. A potential tank pad is already generally graded. Disadvantages of this site include that it does not provide an additional safety benefit to the Rodeo Grounds residents in case the line from the Snow Creek Tank site is severed or needs repair.

The second reservoir site under consideration is the Rodeo Grounds Tank site. This tank site would be to the north west of the property on USFS land. This tank site location is shown on Figure 10 in the JLPUD Pipe Replacement Priority Map[15]. The line to that tank is listed for third priority level installation. Advantages of this site include that it provides the Rodeo Grounds with an additional source of water in the event that other water lines require repair. If the tank was located here and the wells are installed onsite, the Rodeo Grounds could in theory operate independently of other systems. Disadvantages of this site include that it is a new site, and therefore all potential visual impacts must be considered. The access road must be developed. An easement through a residential site would most likely be required for the access road. Also power, radio controls, phone and other utilities must be brought to this new site.

Distribution System

The existing Village Water System is very old and in need of rehabilitation. Many of the pipes are undersized and in poor condition.[16]

The distribution system for the Rodeo Grounds, with the 10" connection to the Snow Creek Tank site, will be isolated from the problems of the existing system. The JLPUD may want to make a connection from the Rodeo Grounds system to the

[11] Master Water Plan Update for June Lake Public Utility District, Boyle Engineering Corporation, November 1999 with draft updates April 2002

[12] June lake Public Utility District, Master Water Plan Update, Boyle Engineering Corporation, November 1999. page 40.

[13] June lake Public Utility District, Master Water Plan Update, Boyle Engineering Corporation, November 1999. page 11.

[14] Rodeo Grounds Water And Sewer System Improvement Report; Prepared For: Intrawest & The June Lake Public Utilities District; By: Triad/Holmes Associates; dated: February 17, 2004 By: Triad/Holmes Associates

[15] Master Water Plan Update for June Lake Public Utility District, Boyle Engineering Corporation, November 1999 with draft updates April 2002

[16] Master Water Plan Update for June Lake Public Utility District, Boyle Engineering Corporation, November 1999 with draft updates April 2002

Leonard Street water line to improve the Village Water System. The distribution system will be installed to meet fire flow demands.

Sewage System

Treatment Capacity

Currently the PUD has enough sewage treatment capacity for approximately 1,000,000 gpd, which can serve app. 10,000 full time residents. The Currently peak day usage is app. 350,000 gpd, which typically occurs in August[17]. Rodeo grounds peak day usage is estimated to be 260,000 gpd, and is expected to occur during the winter holidays. No additional capacity is required so there are no added costs. Any facility upgrades or improvements shall be paid out of normal connection and service fees or community wide special assessments.

Collection System

June Lake PUD includes a 12 inch gravity sewer collection line in Highway 158. This line is expected to be adequate for all supply from both the June Lake Village and the Rodeo Grounds areas. The system will be underground and typically installed in roadways, so no visual impacts are expected.

Electrical

Southern California Edison (SCE) provides electrical power to the June Lake area and surrounding region. Two existing 115 KV power lines and one 12 KV power line currently run through a portion of the site, generally from the southwest to the northern most portion of the site. Currently, capacity does not exist for the entire Rodeo Grounds Project. However, SCE is currently in the planning phase of a new substation on their SCE parcel, which is located within the Rodeo Grounds Specific Plan. This substation will be constructed to eliminate current deficiencies and provide all needed power to the Rodeo Grounds and future projects within the June Lake area. It is anticipated that the construction of the new substation may eliminate the need for the existing substation at the powerhouse location. Electrical facilities typically will be dropped from the existing 12KV overhead power line at various existing power poles and then will be installed underground within the street section in a common dry utility trench as much as practical. On the surface will be pull boxes, transformers, and utility pads. No significant impacts are anticipated.

Units and building were positioned to stay out of the easements of the individual power lines. Minimal home sites and buildings were positioned between the two 112 KV power lines. Roadways were designed to run perpendicularly to the existing power line easements as much as possible.

Telephone

Verizon provides telephone services to June Lake and the surrounding region. Telephone will be installed underground within the street section in a common dry utility trench as much as practical. On the surface will be pullboxes and utility pads. No significant impacts are anticipated.

[17] Pohlman, Mindy, General Manager, June Lake PUD, Interview, January 23, 2004

Cable Television
Cable television service may be provided by a private firm. Cable Television will be installed underground within the street section in a common dry utility trench as much as practical. On the surface will be pullboxes and utility pads. No significant impacts are anticipated.

Propane
Propane may be provided by a private firm, or private firms. At this time the propane system has yet to be determined. There are two potential systems.

The first potential system is an individual system. This system would include individual propane tanks installed on each lot or site. Advantages of this system are low initial cost. Each homeowner has control over Propane Company used. There are no potential common liability issues. No specific property would need to be provided for tank sites. Under this system a common Propane line in the streets would be optional. The disadvantages of this system are visual impact of propane tanks located at each residence. Also there would be limited potential for a future common system.

The second potential system is a central system. This system would include a central tank system with propane lines installed in the common utility trench to supply all residents. Advantages of this system include one or two tank sites, which could be screened. There would be significantly less tanks. Maintenance of tanks would be limited to the one or two tanks. Access to tank site could simplify tank filling. A common propane line would exist. Disadvantages of this system include potential common tank liability issues. Property would need to be provided for the tank sites. A costly common propane line must be installed in the street. This line must be maintained. Suppliers of propane could be limited to a single contract.